

BEET SUGAR INDUSTRY

Great Need for Increase by Farmers in This Country.

Department of Agriculture Has Been Trying for Years to Show Them—Comparatively New Product of This Country.

The average American consumes 82 pounds of sugar each year—and only ten pounds of that ration is now produced in this country. The farmers of the country should keep that money at home, in other words, put it in their own pockets, and the department of agriculture has been trying for 16 years to show them how and induce them to do so.

Sugar is a product of manufacture mainly from the farmers' sugar cane and sugar beets. Incidentally some sugar is produced from the sap of the sugar maple—the entire value of that product, both sugar and sirup, and the sorghum sirup, being only about \$15,000,000 annually, while the total value of the sugar beet and sugar cane industries of this country totaled \$117,000,000.

Beet sugar is a comparatively recent product of this country, and can scarcely be said to have existed 20 years ago. The production during the

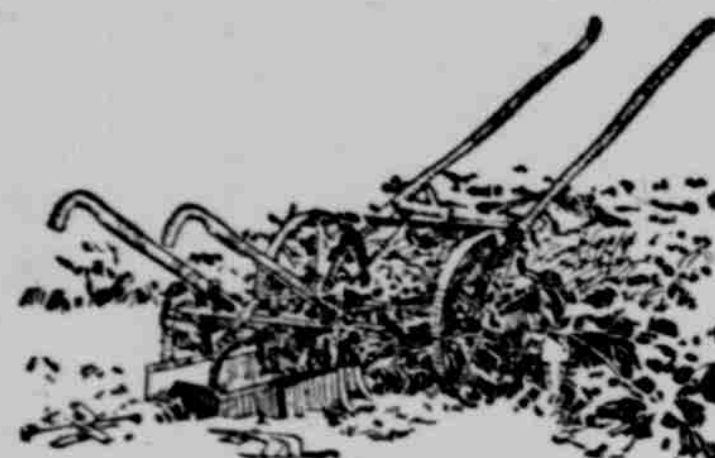


Sugar Beets.

twelfth census year (1899) amounted to 81,729 short tons, while the 1912 product aggregated 700,000 short tons, valued at \$73,000,000.

There are now in operation 66 factories in 17 states, which used during the past season 5,062,333 tons of beets produced on 473,877 acres, and the industry has become one of the mainstays and chief supports of agriculture under irrigation in the semiarid states. Yet this industry produces practically only one-eighth of the home consumption. The importation from entirely foreign territory now approximates 2,550,000 short tons annually. A home beet sugar production sufficient to cut off this production would not affect the home cane sugar industry adversely, because that has so nearly reached its limit that any possible growth it may have from now on will not equal the annual increase in the country's consumption, which has considerably more than doubled in the last 25 years, and now is greater per capita than any other country except England.

With our present low average of one and one-quarter tons of beet sugar per acre, it would require 1,600,000 acres to produce the 2,000,000 short tons now imported; or, according to the acreage harvested the last year, it



Beet Harvester.

would need the production of 2,000,000 acres under beets to equal the entire home demand.

In the 10 states adapted to growing beets there are about 2,500,000 farms and 278,719,622 acres of improved land. Therefore, if every farmer in four of these states would plant a three-acre patch and give it the care that could readily be bestowed upon so small a plot, it would be unnecessary for us to buy foreign sugar. Two-thirds of 1 per cent of the improved land in the states adapted to sugar beet would accomplish this result, and more than that acreage lies idle, absolutely unused, every year. Any one of the states of Illinois, Iowa, Kansas, Missouri, Minnesota, Nebraska or Ohio could produce all this sugar and then have the beets come only once in a ten-year rotation.

USING VETCH AS COVER CROP

It Does, an Expert Says, if Little Rye Is Sowed With It—Crimson Clover Good.

An expert says that winter vetch does best as a cover crop if a little rye is sowed with it. One bushel of vetch to one-half bushel of rye is about right.

In mild climates crimson clover can be used instead of vetch.

ASTHENIA IN POULTRY FLOCK

Not Much Use in Trying to Save Fowl Affected With Disease—It Should Be Killed.

Asthenia is the disease commonly known as "going light," and is caused by almost any condition which tends towards the wasting of the muscles, especially tuberculosis and worms, says a writer in an exchange. Avoid this disease by providing clean, dry, well-ventilated houses; a grass run for the birds, and no moldy grain or litter for them to get into. The affected birds should be killed and burned. There is not much use in trying to cure a bird that has advanced far enough in the disease to be detected.

The danger of such diseases is that the condition of the bird in the first stages is not known unless she is handled and her weight noted. A diseased bird that fluffs out its feathers, as many do, is a hidden menace to the flock. There is apparently less disease proportionately in a small flock than in a large one.

We believe the reason for this is that the individual birds are known in a small flock, and their condition readily ascertained, while in a large flock a sick bird may not be detected until it has reached the last stages.

FEED ALFALFA WITH SILAGE

Particularly Adapted for Young Cattle—Corn Must Be Fed to Produce Solid Fat.

(By RAY A. GATEWOOD, Kansas Agricultural College.)

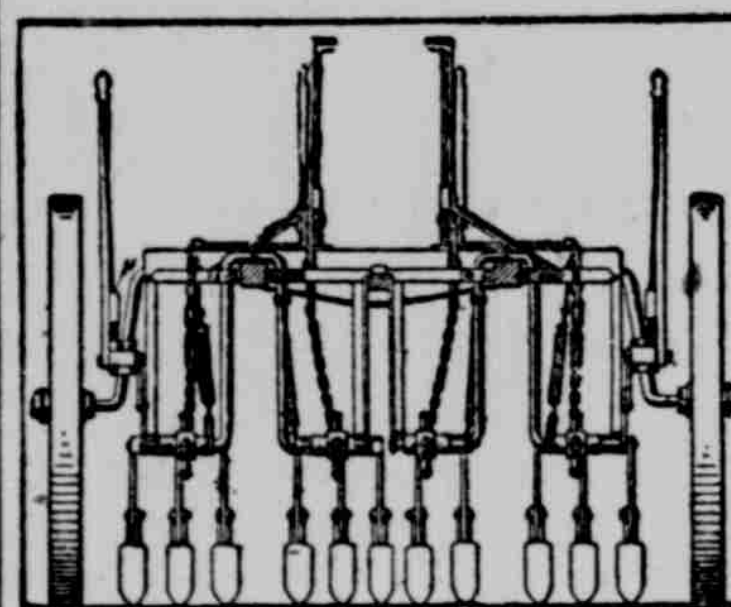
Alfalfa when fed with silage is particularly well adapted as feed for young cattle. In the beginning of the fattening process, the cattle will consume from 15 to 30 pounds of hay and silage a day. Alfalfa hay fed alone does not produce the same effect on cattle that it does when fed in connection with silage, because the latter is more succulent and more palatable than the former.

As cattle approach the marketable point, corn must be fed in quantities readily consumed to produce solid fat. At this stage alfalfa and silage should not be fed in such large quantities as formerly, because the cattle do not need the extra protein. Taking all facts into consideration, alfalfa hay, silage and corn are the most economical fat producers if fed in correct proportions.

CULTIVATING TWO CORN ROWS

Implement Invented by Iowa Man With Two Tongues for Three Horses—Sleeves on Yokes.

Israel B. Hoxworth of Iowa is the inventor of the gang cultivator shown here, recently patented. This cultivator has two tongues for three horses, two rows of corn, or whatever is to be cultivated being cultivated at one time. Sleeves are journaled on the crank ends of yokes that are secured to



Gang Cultivator.

the tongues, bracket arms connecting the sleeves and the cultivator gang beams. An arm projects from each sleeve, a spring connecting one end of these arms and the ends of the yokes. A crank shaft is journaled upon the frame, a spring connecting one end of the crank shaft and the gang beams.—Farming Business.

HENS MUST BE COMFORTABLE

Ample Shade Must Be Provided for Fowls During Hot Weather as Well as Proper Food.

Those who neglect to provide shade for their hens during the trying summer months are likely to regret it. The fowls must have comfort as well as food.

If the yard has no shade it will pay to provide it even though it takes some time and labor.

Shade is regarded as one of the important items in the care of the flock for the summer. When the hot days come on many poultry breeders transfer the hens and young chickens to the orchard or to a woodlot. Where shade is not available a temporary structure six by ten feet square and four feet high is erected; this is covered with burlap or canvas. An ideal place for young fowls is near the edge of a cornfield where they can have shade, scratching places and can find many insects.

CHERRY LOUSE IS ABUNDANT

Especially Thick on Tender Leaves Toward Tip of Twigs—Sometimes Ruin Fruit Crop.

The black cherry aphid often becomes very abundant at this time of the year, especially upon the tender leaves toward the tips of the twigs. Sometimes these lice become so abundant as to almost ruin the crop of fruit upon the trees. Often they are not noticed until they become extremely abundant.

Gales of GOTHAM and other CITIES

How to Show the Sights of New York in One Day

NEW YORK.—How to show New York in a day is a problem which has confronted many a resident of the city when his country cousins have appeared unexpectedly "for a visit," but in reality to see the metropolis. After many years' experience one man has solved the riddle and now when his third cousin comes to town he transforms himself into the manager of a personally conducted tour and in that way wins not only a profusion of thanks, but fervid invitations to spend all of next summer at his guests' homes in the country. Resolving himself into a guide of czarlike authority, the city cousin takes his party down to the Battery to the Aquarium. After viewing the best collection of fishes in the United States, the guide leads the way to a boat landing a few paces away and the party spends an hour crossing to Bedloe's Island, climbing part of the way up the interior of the Liberty statue, and returning to Manhattan he proceeds up Whitehall street to the new customhouse and Bowling Green park. Where now stands a statue of the one-legged Peter there stood in Revolutionary days that leaden counterfeit of King George III, which, as every school book says, was turned into bullets and sent hurtling after the fleeing redcoats.

Turning east a block to Broad street, the guide points out the remodeled Fraunces tavern, where General Washington bade a tearful farewell to his officers. Going north to Wall street, the party views the United States treasury, the stock exchange, Trinity church, and at the same time sees some of the tallest skyscrapers. Then the guide leads the party northward in Center street to "Little Italy," Chinatown and the Bowery. Turning eastward they proceed through the streets congested with folk speaking alien tongues.

After viewing the celebrated push-cart markets in the gutters of Hester street, they turn westward to Washington square, where they board a bus that carries them along "Millionaire row" on Fifth avenue, turning off at Fifty-seventh street to Riverside drive and Grant's tomb.

Men of Sacramento Organize a Barefoot League

SACRAMENTO, CAL.—Harkening back to the days when man roamed carelessly across green pastures, unshackled by costly footwear, when cool, solid comfort met the naked foot at every step, and when corns and bunions were unheard of, four prominent Sacramento men have formed what is known as the Sacramento Barefoot League.

There are four charter members of the league, and they are Dr. Robert E. Smith, James McCollough, L. O. Lumry and Steve Downey.

The league was organized in quite an unintentional way. Which of the four was the originator is not known. But it is intimated that Doctor Smith, for several years advocate of the Costless Summer League for Men, had something to do with it.

The requirements of the league are these: No member must be too modest to display his bare feet. He must be without pedal covering in attending meetings. He must be willing to do, and enjoy, walking on his lawn before the assembled multitude, including his wife, unshod.

He must be willing to step into his neighbor's house in his bare feet and walk across his neighbor's hardwood floors as nonchalantly as though he were Pithecanthropus in the jungles.

Several meetings of the league have been held at the homes of the charter members. The meetings are preceded by a walk upon the lawn of the host. As the evening becomes cool the members retire to the host's drawing room and are entertained with phonograph selections.

Despite serious objection to the league on the part of the better halves in some of the homes, the organization has grown and is now reaching out for congenial spirits.

"Keep cool and comfortable and cure your corns" is the slogan of the league.

Mississippi Slights Memphis But Eats a Park

MEMPHIS, TENN.—A great bar of mud and sand, half a mile long and an eighth of a mile wide, has formed along the Mississippi river front, preventing steamboats landing at the Memphis levee. Thousands of dollars are being expended to remove the obstruction to navigation.

For six months there has been a race between the dredgeboats pumping out the sand and the current of the river, which has been throwing the sand and mud toward the shore. The current won, but the government engineers have worked out a plan whereby a channel will be cut to let the current of the river flow against the mud bar from another point, eventually cutting it away and restoring navigation. Twenty years ago there was 90 feet of water where the mud bank now extends four or five feet above the surface of the water. The channel has veered off from Memphis, swinging to the Arkansas shore, where it runs swift and deep. It will probably cost the government a half a million dollars to induce the channel to swing back to the Tennessee side.

A little farther down the river the channel has set hard against the Tennessee shore and is eating its way into beautiful Riverside park, a large tract of land owned by the city. Already at some places the bank has been washed away and the highly improved driveway has fallen into the water.

When the channel of the Mississippi decides to make a change, nothing, apparently can stop it. It will begin eating into the soft earthen banks and such obstructions as trees of giant proportions do not stand in its way. At some points the river has carried away a quarter of a mile of land in a single high-water period and steamboats run where only a few months before fields of corn and cotton grew.

Gotham's Cold Storage Eggs Must Be So Stamped

NEW YORK.—"Cold storage" will be the appetizing words that will confront you most of the time when you order "three soft boiled" for breakfast. "Cold storage" will mingle with your omelet; the shells from which emerge your scrambled eggs will have been stamped "cold storage."

There are only 650,000,000 eggs in cold storage in New York and thereabouts. Doubtless they are good eggs, but it is extremely impolite to ask a cold storage egg its age. So John J. Dillon, state commissioner of foods and markets, ruled recently that every such egg must have stamped on it the words "cold storage."

The truly important question is "Who, in obedience to Commissioner Dillon's order, will stamp the eggs?" Commission merchants who deal in eggs insist that the retailers, the little dairymen and delicatessen dealers must identify every one of the 650,000,000 eggs that come out of cold storage to the consumer.

Perhaps the families of the delicatessen dealers and the growers would find great happiness and enjoyment in imprinting "cold storage" on all such eggs. Besides, the practice would teach the younger members of the family delicacy of touch. The imprint must be made gently, very gently. Otherwise there would be need—in the case of some eggs, or in some cases of eggs—of gas masks, and gas masks are expensive. They are in much demand "somewhere" in every country that is fighting in Europe. The manufacturers of gas masks are making as much money as the capable and industrious hens are earning for—not the farmers—but the commission merchants and the retailers.

IMPORTANT AID TO INDUSTRY

Much Good Work Done Through Industrial Fellowship in Educational Institutions.

The industrial fellowship of Dr. Robert Kennedy Duncan, initiated at the University of Kansas in 1907, was adopted some years later at the University of Pittsburgh, where it has developed into the Mellon Institute of Industrial Research, which now has a new building and special equipment costing nearly \$350,000. The fellowship is a kind of partnership, in which, for the study of some problem, an industrial concern places a given fund or endowment against the services of a scientific specialist, and the research carried out both promotes American industry and aids the investigator. At Pittsburgh the first fellowship was founded through a grant from a baking company desiring to improve its product. In the five years following the establishing of the first fellowship, 47 distinct interests have endowed about 105 one-year fellowships, contributing for the investigations \$30,400, and expending in addition more than \$300,000 for constructing experimental plants, besides awarding \$21,300 in bonuses to fellows successful in solving problems submitted. The university itself expended about \$175,000, besides the investment in the new research station. About seven out of ten of the problems assigned have been worked out to the satisfaction of the donors of endowment; many fellowships have been renewed; 25 patents have been granted to holders of the fellowships, while as many more are pending, and about 20 new processes evolved are in actual operation on a commercial scale.

TAX ON WAGE EARNERS DUE

Many English Workers May Escape the Income Assessment Recently Levied.

Our civil service correspondent writes, according to the London Telegraph:

"The first quarterly income tax assessment on wage earners is now due, the period according to the finance act of 1915, under which the rate was imposed, having commenced on April 1, this year. Only those earning wages above £130 sterling (\$650) a year are liable. It is estimated that about 900,000 workers will come under survey, but after the usual abatements and reliefs are given a large proportion of those will be exempt, and it is as yet impossible to say how many will become actually liable to the tax, or what amount may be expected to be received.

"When the abatement of £120 and the relief in respect of children (£25 each) and the deductions for life insurance are taken into account, it is believed that the actual number of wage earners who will pay income tax will turn out much smaller than is popularly supposed, unless the high wages due to the war may upset previous estimates. The tax may be paid by weekly installments by means of post office stamps where the amount of tax for any quarter exceeds six shillings. This is a concession which will greatly facilitate payment, and no doubt will be largely availed of."

Mammy Wasn't Educated in Law.

"Mammy" Washington seemed very ill at ease in court. She admitted to the judge that it was her first time on "poleeceman ground." Considerable difficulty was experienced in making her answer questions. She would go just so far and then stop, all adfuster.

The judge hit upon a scheme. "There is no need for you to be excited, Mrs. Washington," he said, with a smile, "I'm just a judge and you are just you."

At last the old negress found her tongue.

"Dat's jes' hit, suh," she cried, explosively, "I is me, but yo' isn't you, in dem spec's, and wid dat croaky mallet in yo' han'. Ef yo' could fix hit fer to talk dis over in a kitchen, I'd be all right, jedge!"—Case and Comment.

Record of Peruvian Invention.

According to a report made by the ministerio de fomento to the Peruvian congress in August, 1915, the number of trade marks registered for the year 1914-15 was 288, as against 406 for the year 1913-14. Notwithstanding this decrease, the number of marks emanating from the United States increased not less than 50 per cent. The number of patents granted during the year was 95, a record number, as against 51 for the preceding year. More than 40 per cent of these were for improvements invented in the United States.

Has Woman Bank Cashier.

Wall street has a woman cashier! Woman cashiers in stores and business houses are not uncommon, but a woman cashier in a Wall street bank establishes a precedent, because women have been believed to be uneducated in the ways of high finance.

The new cashier is employed by the Bank of Cuba in New York, and her name is Lillian Jones. Miss Jones has come up from the ranks, having been a stenographer.

Economic Phenomena.

"Look at the difference made by the high cost of living," exclaimed the agitated citizen.

"I can't see as much difference as you do," replied the man who refuses to worry. "It seems to me that I knew of just as many people going broke when living was less expensive as I do now."

THE HIGH QUALITY SEWING MACHINE

NEW HOME

NOT SOLD UNDER ANY OTHER NAME Write for free booklet "Points to be considered before purchasing a Sewing Machine." Learn the facts. THE NEW HOME SEWING MACHINE CO., ORANGE, MASS.

Ask for and Get

SKINNER'S

THE HIGHEST QUALITY

SPAGHETTI

36 Page Recipe Book Free

SKINNER MFG. CO. OMAHA, U.S.A. LARGEST MACARONI FACTORY IN AMERICA

YOUNG MAN! BE A

TICKET AGENT

Our complete course of instruction by a Ticket Agent of 25 years experience teaches you how. Complete cost of course \$2.00. Don't let education worry you. Join the army of 25,000 ticket agents. We prepare you in 30 days. Write for particulars. THE TICKET AGENTS' INSTITUTE 485 Shearer Bldg. Bay City, Mich.

\$25 AN ACRE

gets this 120 acre Indiana farm. 3 room house, large barn, good water, young orchard, near school. Write Alex Ball, R. 2, Scottsburg, Ind.

Ford Auto \$1.00

Send dime for 30 cake toilet soap in a great offer. Monroe Soap Co., 25 S. Macomb St., Monroe, Mich.

AGENTS

Men, women, boys or girls. We guarantee 100% profit. Mail 25c for outfit. BOX 668, SCHUYLKILL HAVEN, PA.

Fortunes in Oklahoma Oil

Buy an oil monthly payments; bank reference given; reliable agents wanted. Address Foster Oil Assn., Ceredo, Ohio.

WORMS

destroy cabbage. Ten cents will clean an acre; not poisonous; send \$2.00 for instructions. R. C. NASH, LYLES, IND.

"DUSTOFF"

cleans everything; sanitary; absorbs; saves labor; cheapest horse servant; 1 lb. 25c. AM. COMMODITY CO., 209 Broadway New York

"ROUGH ON RATS"

Kills Rats, Mice, Bugs, etc. outdoors. 1 lb. 25c.

W. N. U., Indianapolis, No. 38-1918.

SAYS HYPNOTISM IS EASY

Prof. Munsterberg Declares He Can Bring Anybody He Ever Met Under Complete Subjugation.

Prof. Hugo Munsterberg, the Harvard psychologist, says he can hypnotize anybody he ever met, according to a Cambridge (Mass.) dispatch to the New York Evening Telegram. He knows Kaiser Wilhelm very well, and said he would not except the kaiser. The Harvard summer school students were told how easy it is to hypnotize anybody, almost as easy as "rolling off a log." The professor predicted a great field in the future for the expert in mind control. He said:

"Hypnotism presents a vast field for the expert. It is so easy to produce the hypnotic trance that anyone can do it on others, but it is exceedingly dangerous when thoughtlessly or ignorantly used. It is simply a case of increasing the suggestibility of the mind, and it can be used in medicine to cure the morphia fiend, the alcoholic fiend and all who have abnormal desires. Often only a slight hypnosis is necessary to effect a cure for nervous disorders.

"Medicine, equally with law, is to be the food for the psychologist of the future. Every mental trait can be measured exactly by almost perfect standards. The old methods are obsolete and the whole science of diagnosis has been carried into the field of experiment. Psycho-analysis has a great future."

He Would.

"I'm thinking seriously of starting a moving picture theater."

"Well, there's good money in that business."

"It isn't the money I'm after. But I would like to see my wife and children once in a while."

Fitted for the Game.

"He pitches his voice too high."

"Yet you must admit he has a catch in it."

Grape-Nuts

Gets Attention—

First, because of its wonderfully delicious flavor—

Then again, because it is ready to eat—fresh and crisp from the package.

But the big "get attention" quality is its abundance of well-balanced, easily digestible nourishment.

For sound health, every table should have its daily ration of Grape-Nuts—

"There's a Reason"